

AMENDMENT

Please amend the claims as indicated hereafter.

Listing of Claims

- 1 1. (Original) A system for reassembling asynchronous transfer mode
2 (ATM) data in real time, comprising:
3 a circular buffer for storing ATM data, the ATM data comprising information
4 divided into cells; and
5 a plurality of parallel processing elements configured to analyze the ATM cells
6 and determine a cell type, wherein ATM adaptation layer (AAL) 2 cells and AAL 5
7 cells are reassembled in real-time.
- 1 2. (Currently amended) The system of claim 1, wherein the circular buffer
2 communicates with the plurality of parallel processing elements simultaneously.
- 1 3. (Original) The system of claim 2, further comprising a fragmentation
2 table configured to receive and store data fragments associated with an ATM cell.
- 1 4. (Original) The system of claim 3, further comprising a buffer manager
2 configured to accumulate the data fragments and assemble the data fragments into a
3 frame.
- 1 5. (Original) The system of claim 4, further comprising a statistics
2 memory configured to store statistics associated with the cells.
- 1 6. (Original) The system of claim 5, wherein the statistics are chosen from
2 an idle cell, an unassigned cell, an operation and maintenance (OAM) cell, an AAL 2
3 cell, an AAL 5 cell, a header error correction (HEC) error cell, a frame count, a byte
4 count, congestion information, AAL5 CRC error count, and resource management
5 (RM) cell count.

1 7. (Original) The system of claim 6, wherein the statistics are gathered for
2 each unique VPI/VCI cell stream.

1 8. (Currently amended) The system ~~devi~~ee of claim 7, wherein the
2 statistics are periodically provided to a processor for display.

1 9. (Original) A method for reassembling asynchronous transfer mode
2 (ATM) data in real time, comprising:
3 providing ATM data to a circular buffer, the ATM data comprising information
4 divided into cells;
5 storing the ATM data in the circular buffer;
6 analyzing the ATM cells to determine a cell type, wherein ATM adaptation
7 layer (AAL) 2 cells and AAL 5 cells are reassembled in real-time.

1 10. (Currently amended) The method of claim 9, further comprising
2 simultaneously communicating between the circular buffer and a ~~the~~ plurality of
3 processing elements.

1 11. (Currently amended) The method ~~system~~ of claim 10, further
2 comprising receiving and storing data fragments associated with an ATM cell in a
3 fragmentation table.

1 12. (Original) The method of claim 11, further comprising:
2 accumulating the data fragments in a buffer manager; and
3 assembling the data fragments into a frame.

1 13. (Original) The method of claim 12, further comprising storing statistics
2 associated with the cells in a statistics memory.

1 14. (Original) The method of claim 13, wherein the statistics are chosen
2 from an idle cell, an unassigned cell, an operation and maintenance (OAM) cell, an

3 AAL 2 cell, an AAL 5 cell, a header error correction (HEC) error cell, a frame count, a
4 byte count, congestion information, AAL5 CRC error count, and resource management
5 (RM) cell count.

1 15. (Original) The method of claim 14, wherein the statistics are gathered
2 for each unique VPI/VCI cell stream.

1 16. (Original) The method of claim 15, further comprising periodically
2 providing the statistics to a processor for display.

1 17. (Currently amended) A computer readable medium having a program
2 stored thereon for reassembling asynchronous transfer mode (ATM) data in real time,
3 comprising:

4 logic for providing ATM data to a circular buffer, the ATM data comprising
5 information divided into cells;

6 logic for storing the ATM data in the circular buffer;

7 logic for analyzing the ATM cells to determine a cell type, wherein ATM
8 adaptation layer (AAL) 2 cells and AAL 5 cells are reassembled in real-time.

1 18. (Currently amended) The computer readable medium program of claim
2 17, further comprising logic for simultaneously communicating between the circular
3 buffer and a plurality of processing elements.

1 19. (Currently amended) The computer readable medium program of claim
2 18, further comprising logic for receiving and storing data fragments associated with an
3 ATM cell in a fragmentation table.

1 20. (Currently amended) The computer readable medium program of claim
2 19, further comprising:

3 logic for accumulating the data fragments in a buffer manager; and

4 logic for assembling the data fragments into a frame.

1 21. (Currently amended) The computer readable medium program of claim
2 20, further comprising storing statistics associated with the cells in a statistics memory.

1 22. (Currently amended) The computer readable medium program of claim
2 21, wherein the statistics are chosen from an idle cell, an unassigned cell, an operation
3 and maintenance (OAM) cell, an AAL 2 cell, an AAL 5 cell, a header error correction
4 (HEC) error cell, a frame count, a byte count, congestion information, AAL5 CRC
5 error count, and resource management (RM) cell count..

1 23. (Currently amended) The computer readable medium program of claim
2 22, wherein the statistics are gathered for each unique VPI/VCI cell stream.

1 24. (Currently amended) The computer readable medium program of claim
2 23, further comprising logic for periodically providing the statistics to a processor for
3 display.